

# MAFES Dawg Tracks

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MISSISSIPPI STATE UNIVERSITY™  
MS AGRICULTURAL AND  
FORESTRY EXPERIMENT STATION

*In the Cold*

Down here in Mississippi heat is usually the weather issue we worry about from a safety standpoint. However, occasionally it does get seriously cold here too. The surprising fact is that some of the precautions to take in both of these extreme temperatures are similar.

## **When working outside in cold weather...**

- Schedule work to be completed during the warmest part of the day.
- Take frequent breaks - a good rule of thumb for is 15 minutes out of every hour. Set up a warm, dry shelter for workers to use.
- Provide liquids (warm) to drink, avoiding caffeine and alcohol. Stress the importance of staying hydrated. People don't realize how quickly heat is escaping the body when working in the cold & you can become dehydrated.
- Use engineering controls -radiant heaters, if possible.
- Wear proper clothing. Layering clothing can provide better insulation against the cold because the body can warm the trapped air between the layers. Leather boots are warmer than tennis shoes. Hats & hoods will decrease the amount of heat escaping from the head, or toboggans to help keep ears warm too. Use insulated gloves to protect the hands (water resistant if necessary).

## **Recognize These 3 Common Types of Cold Stress:**

**1. Hypothermia** - occurs when body heat is lost faster than it can be replaced and the normal body temperature (98.6°F) drops to less than 95°F. Hypothermia is most likely at very cold temperatures, but it can occur even at cool temperatures (above 40°F), if a person becomes chilled from rain, sweat, or submersion in cold water.

### **Symptoms**

- Begin to shiver. As the body temperature continues to fall, symptoms will worsen and shivering will stop.

- Lose coordination and fumble with items in the hand, become confused and disoriented
- Unable to walk or stand, pupils become dilated, pulse and breathing become slowed, and loss of consciousness can occur. A person could die if help is not received immediately.

**2. Frostbite** - injury to the body that is caused by freezing of the skin and underlying tissues. The lower the temperature, the more quickly frostbite will occur. Frostbite typically affects the extremities, particularly the feet and hands. Amputation may be required in severe cases.

### **Symptoms**

- Reddened skin develops gray/white patches.
- Numbness in the affected part.
- Feels firm or hard. Blisters may occur in the affected part, in severe cases.

**3. Trench Foot** or immersion foot is caused by prolonged exposure to wet and cold temperatures. It can occur at temperatures as high as 60°F if the feet are constantly wet. Non-freezing injury occurs because wet feet lose heat 25-times faster than dry feet. To prevent heat loss, the body constricts the blood vessels to shut down circulation in the feet. The skin tissue begins to die because of a lack of oxygen and nutrients and due to the buildup of toxic products.

### **Symptoms**

- Redness of the skin, swelling, numbness, blisters

### **1<sup>st</sup> Aid for Cold Stress**

- Call 911 or seek medical assistance as soon as possible. Move the person to a warm, dry area.
- Remove wet clothes/shoes and replace with dry clothes, cover the body (including the head and neck) with layers of blankets; and with a vapor barrier (e.g. tarp, garbage bag). Do not cover the face.
- Do not rub the affected area to warm it because this action can cause more damage.
- If medical help is more than 30 minutes away: Give warm sweetened drinks if alert (no alcohol), to help increase the body temperature. Place warm bottles or hot packs in armpits, sides of chest, and groin.

For more info contact – Leslie Woolington

**MAFES /MSU-EXTENSION**

**Risk Mgmt. / Loss Control**

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Sources:

<http://www.safetyandhealthmagazine.com/articles/print/16353-out-in-the-cold>  
<https://www.osha.gov/SLTC/emergencypreparedness/guides/cold.html>